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the Hudson Bay Territory. Of this, but a comparatively small part was tributary to Lake Superior and Lake Michigan, the Fox River Valley being the chief one. And nearly all the region of Indiana and Illinois, though much less abundant in the production, must be added. I have been thus particular regarding this plant, not alone to correct any error that may have arisen concerning it, but to bring together some facts concerning a state of things that has largely passed away, or will soon be of the past, like the Indians who once were in power here. Those still gather the grain who live in the region of the Upper Mississippi and the Red River, and perhaps some scattered communities in Wisconsin. I saw some of it in 1889 at Vermilion Lake, where a few of them still reside; soon, however, it was said, to move elsewhere.

#### A New Locality for *Lychnis Floscuculi*, L.

The last edition of the Manual gives the range of this plant as New England and New York. It is but sparingly established in New York, however. Dr. Watson informs me that it was collected at Old Chatham, N. Y., in 1888, by C. E. Faxon. This is the only place in the state at which I can learn of its having been found until last season; it was collected by my brother at Irvington on the Hudson. The station is at the Irving grounds, just north of Irvington. Quite a number of specimens were found growing in the edge of the lawn near the entrance to the grounds. The frequent mowing of the lawn had kept them from becoming very numerous; but farther north and directly west of the house, there is a strip of waste land bordering the Irving grounds on one side and the Hudson River Railroad on the other. Here the plant was found growing quite abundantly. How it became established here is uncertain. It may possibly have been cultivated on the grounds at some former time, or its proximity to the railroad may account for it.

However this may be, it seems to have thoroughly established itself at this place. CORNELIUS L. SHEAR.

#### Botanical Note.

*The Botanical Society of Western Pennsylvania* have issued their Calendar for 1890-91. This little pamphlet contains a brief

history of the organization, its proposed dates of meeting, list of members, books in the library, etc. The officers for the present year, beginning last October, are President, Prof. J. W. Caldwell; Vice-President, Rev. H. R. Johnson; Corresponding Secretary, Prof. J. G. Ogden; Recording Secretary, Miss W. L. Matthews; Treasurer, C. C. Mellor; Curator, John A. Shafer.

### Reviews of Foreign Literature.

#### *A New Theory of the Process of Growth of the Plant Cell.*—

In the "Berichte der Deutschen Bot. Gesellschaft" for August, 1890, pp. 196, is an article by Dr. Julius Wiesner entitled, "An Attempt to Explain the Growth of the Plant Cell." The writer states that most botanists assume that the growth of the cell and its parts takes place by means of intussusception; others discard this theory entirely and claim that the method is that of apposition; still another class try to harmonize known facts by a combination of the two theories, namely, that both methods of growth occur. Then follows a brief statement of an explanation which is entirely independent of the much-vexed question of intussusception or apposition.

This theory, if substantiated, would lead to an over-throw of several other long cherished opinions respecting not only the manner of growth of the cell but the nature of the substance composing it, and is altogether of such a revolutionary character as to warrant an almost literal translation of the article referred to.

In his explanation he first shows the analogy between growth in general and that of the smallest part of the organism; for example, the growth of an organ, leaf or stem, takes place by an increase in volume coming from the extension of a whole or part of its cells. There may be unequal development, one part growing faster than the other, but the whole organ gets its shape, size, etc., from the growth of the cells composing it. Now the cell growth is similar to this, in so far that it is accomplished by the parts composing it. Without any apparent shoving or displacement, it grows in surface, in length, and in thickness, the growth always preserving the intercalary nature of all new formation. This very idea of intercalary growth led to the notion of